1.0 PURPOSE AND NEED

The Southern California Association of Governments (SCAG), in coordination with the Los Angeles County Metropolitan Transportation Authority (Metro) and the Orange County Transportation Authority (OCTA), has completed an Alternatives Analysis (AA) study to explore opportunities for connecting Los Angeles and Orange Counties through the reuse of the Pacific Electric Right-of-Way/West Santa Ana Branch Corridor (PEROW/WSAB Corridor). The AA study also evaluated possible connections from the PEROW/WSAB Corridor north to Union Station in Downtown Los Angeles, and south to the Santa Ana Regional Transportation Center (SARTC).

Initiated in February 2010, the purpose of the AA study was to identify and assess a full range of transportation alternatives, and recommend a preferred alternative(s) that addresses Corridor mobility needs in the year 2035. The AA efforts followed the Federal Transit Administration (FTA) guidelines and standards to not only provide a reasoned basis for the selection of the Recommended Alternative, but also to ensure that the identified transportation alternative is eligible for future federal funding if available. The study process included three phases of evaluation to screen a wide range of possible alternatives to the most viable alternative that meets the identified project goals and Purpose and Need. Each screening phase incorporated technical and environmental analyses, along with community and stakeholder input. The first two evaluation phase efforts were documented in the *PEROW/WSAB Corridor AA Initial Screening Report* completed in July 2011. The third level of evaluation assessing the Final Alternatives is documented in this AA report.

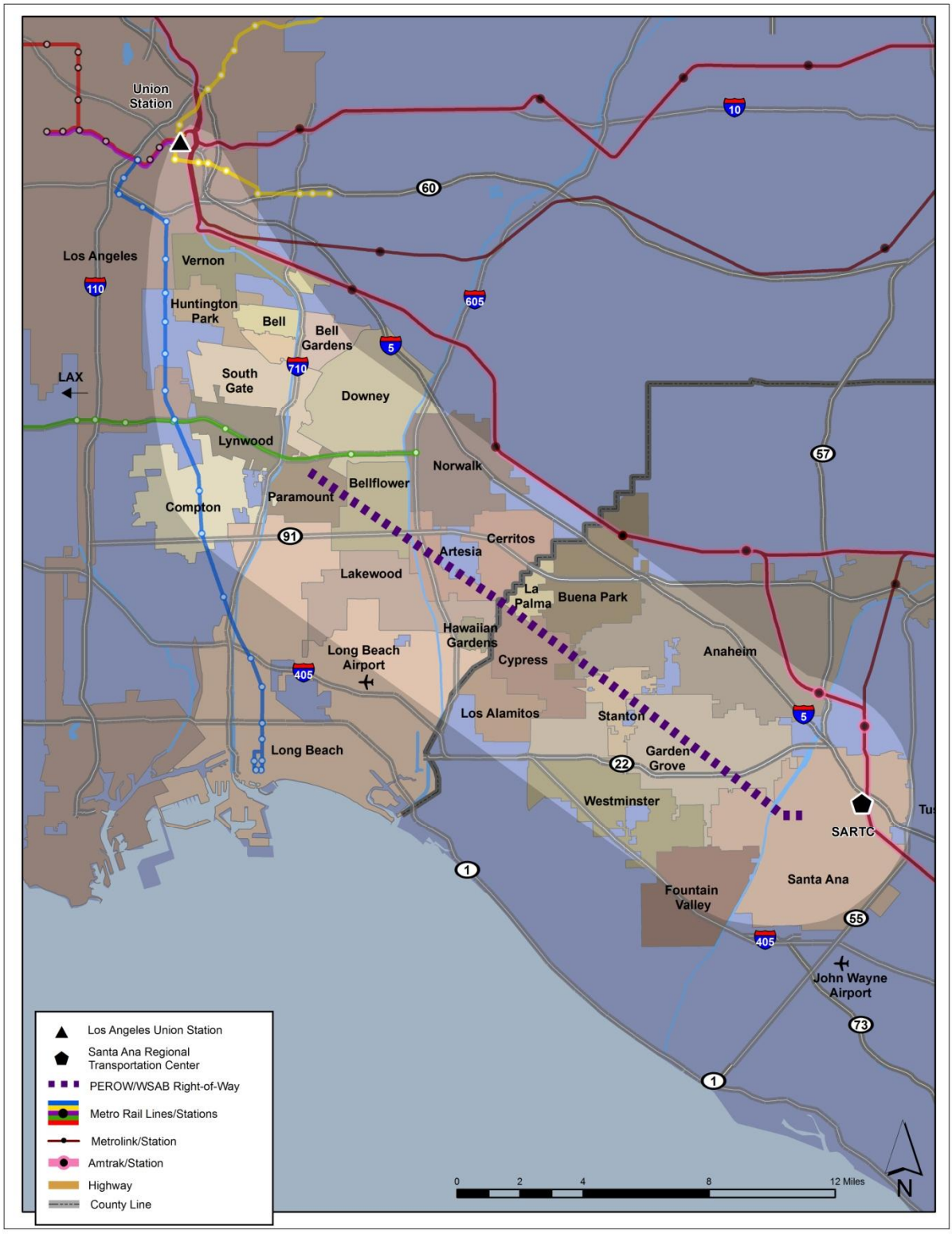
This chapter presents an overview of the Corridor Study Area and a summary of the Mobility Problem and Purpose and Need Statement as documented in the *PEROW/WSAB Corridor AA Purpose and Need Report*. The Corridor's current and projected (2035) mobility problems are presented and an overall project purpose and need for a new transportation investment strategy is defined by:

1. Providing a description of the Corridor Study Area, its characteristics, and context;
2. Identifying mobility problems and concerns in the Corridor; and
3. Relating the Corridor mobility problems and concerns to applicable transportation, land use, economic development, environmental, and other goals and objectives to identify an overall purpose and need for transportation improvements.

1.1 Corridor Description

The PEROW/WSAB Corridor is a densely developed area comprised of the most active hearts of Los Angeles and Orange counties, including Downtown Los Angeles, the Gateway Cities subregion of Los Angeles County, the growing western and central portions of Orange County, and Downtown Santa Ana as illustrated in Figure 1.1. Currently home to 4.5 million people, or approximately one-third of Los Angeles County's population and half of Orange County's residents, the Corridor's population is projected to increase with more than 500,000 residents by 2035. In 2035, 44 percent of Orange County's total employment, and approximately one-third of Los Angeles County's total jobs will be located here.

Figure 1.1 – Corridor Study Area



The PEROW/WSAB Corridor right-of-way (ROW) was formerly part of the Pacific Electric (PE) Railway, or Red Car, system that provided transit service throughout Southern California from 1901 to 1961. At its peak, the PE Railway system connected cities throughout Los Angeles, Orange, Riverside, and San Bernardino counties. Passenger service operating on the ROW ran south from Downtown Los Angeles, along the alignment currently used by the Metro Blue Line, to the Watts Station where the line turned southeast to travel along the ROW to a terminal station in Santa Ana. Passenger service to Santa Ana ceased in 1950 and to Bellflower in 1955. Now owned by Metro and OCTA, the ROW is known as the West Santa Ana Branch in Los Angeles County and the Pacific Electric ROW in Orange County. The PEROW/WSAB Corridor ROW has been primarily unused since PE service ended in 1961.

The core of the 34-mile long study area is the former PE Railway ROW that extends for 20 miles at a diagonal between Paramount in Los Angeles County and Santa Ana in Orange County. The AA effort evaluated possible transit connections 12 miles north from the termination of the PEROW/WSAB Corridor ROW in Paramount to Union Station in Downtown Los Angeles, and two miles south from the ROW terminus at the edge of Santa Ana to the SARTC. The study area is approximately eight miles in width, or four miles on either side of the ROW centerline bordered by two parallel heavily-traveled freeways – the I-5 to the north and the I-405 to the south. The approximate study area boundaries are:

- *North* – Union Station in Downtown Los Angeles, the east bank of the Los Angeles River, and the I-5/Santa Ana Freeway;
- *East* – the SARTC located in eastern Downtown Santa Ana;
- *South* – the I-405/San Diego Freeway; and
- *West* – Metro Blue Line north to Downtown Los Angeles.

The study area was divided into three sections for analytical purposes and to reflect different physical conditions, funding, and agency coordination requirements and possible phasing decisions:

1. PEROW/WSAB Area – This portion of the study area includes the former PE Railway ROW, with a majority (60 percent) of the alignment located in Orange County. Cities included in this area are: Anaheim, Artesia, Bellflower, Buena Park, Cerritos, Compton, Cypress, Downey, Fountain Valley (part), Garden Grove, Hawaiian Gardens, Lakewood, La Palma, Long Beach (part), Los Alamitos, Lynwood, Norwalk, Orange, Paramount, Pico Rivera (part), Santa Ana, Stanton, South Gate, Tustin (part), and Westminster (part).
2. Northern Connection Area – Consists of the portion of the study area extending north from where the PEROW/WSAB ROW terminates in Paramount to Downtown Los Angeles. Possible northern connections were explored in the area bounded on the west by the Metro Blue Line and on the east by several active and inactive railroad ROWs. Cities included in this area are: Bell, Bell Gardens, Compton, Cudahy, Downey, Huntington Park, Los Angeles (part), Lynwood, Maywood, Norwalk, Paramount (part), South Gate, and Vernon.
3. Southern Connection Area – This street-running segment extends east from where the PEROW/WSAB Corridor ends at Harbor Boulevard through the city of Santa Ana to the SARTC.

1.1.1 Activity Centers and Destinations

As Figure 1.2 shows, the Corridor contains a wide variety of civic, education, commercial, cultural, entertainment, recreational, and employment destinations that attract local, regional, and national travelers:

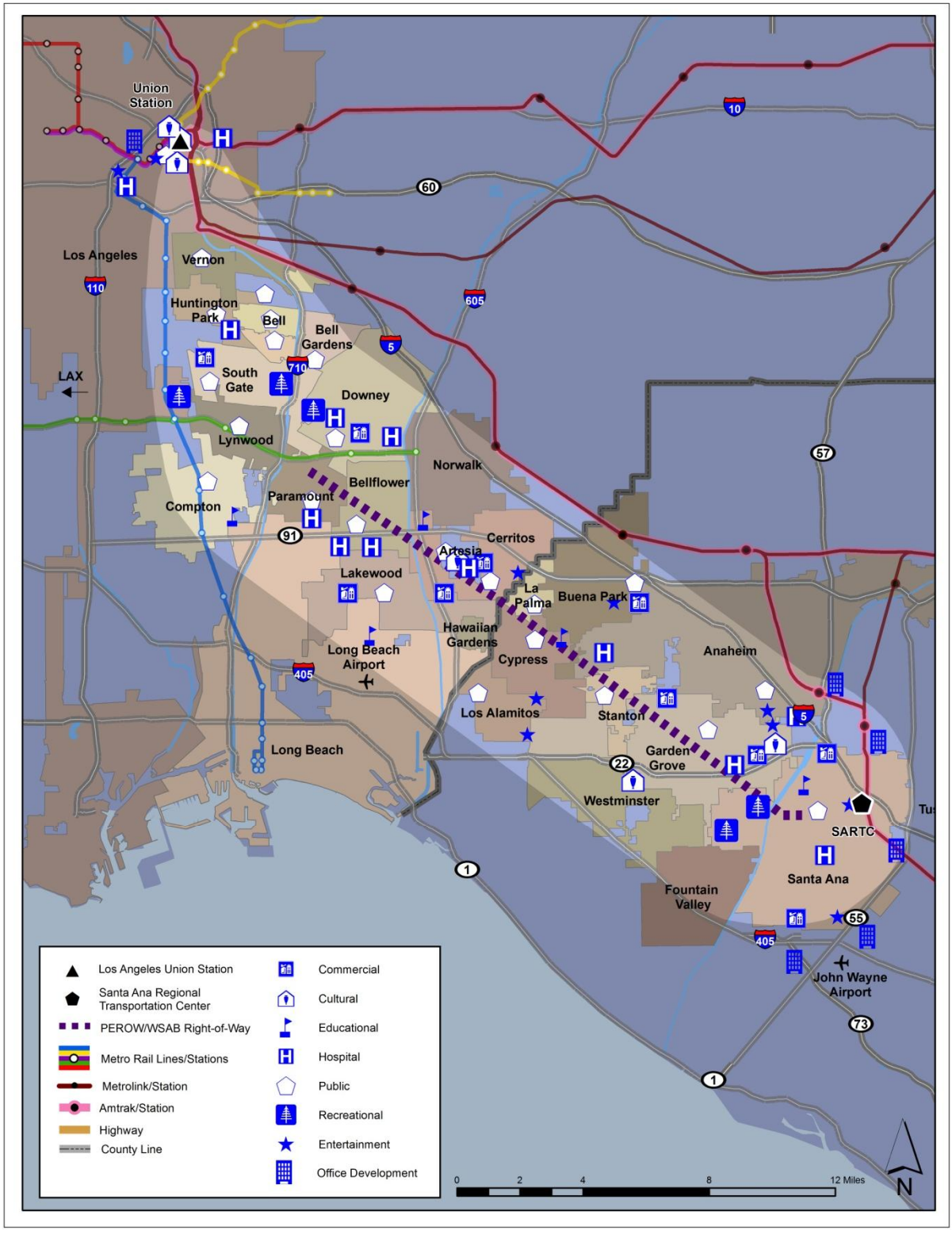
- *Public facilities*, including civic centers, community centers, and the Anaheim and Los Angeles convention centers;
- *Commercial areas*, including main street retail districts and regional shopping centers;
- *Educational institutions*, including public and private schools and five community colleges;
- *Cultural and entertainment venues*, including the Music Center, Los Angeles Live, and Staples Center in Downtown Los Angeles, the Cerritos Center for the Performing Arts, Knott's Berry Farm, Disneyland, and the Orange County Performing Arts Center;
- *Ethnic cultural centers*, including Chinatown, Little Tokyo, and Olvera Street in Downtown Los Angeles, Little India in Artesia, and Little Saigon in Westminster;
- *Medical facilities*, including many locally important and nationally-recognized health care facilities from California Hospital and Medical Center and the County/USC Hospital/Medical Center in Downtown Los Angeles to the University of California, Irvine Medical Center in Orange;
- *Recreational facilities*, including El Dorado Regional Park, Pueblo de Los Angeles State Park, Watts Tower State Historic Park, Cerritos Regional Park, and Centennial Regional Park;
- *Office space* in Downtown Los Angeles, Anaheim, Santa Ana, and Orange; and
- *Industrial, manufacturing, warehousing, and intermodal facilities* in Bell, Bell Gardens, Cudahy, Downey, Huntington Park, Los Angeles, Lynwood, South Gate, and Vernon.

1.1.2 Demographic Characteristics

The PEROW/WSAB Corridor was recommended for study because of the following characteristics:

- *High population growth* – Currently home to 4.5 million people, the Corridor's population is projected to grow by 12 percent or more than 500,000 residents by 2035.
- *High population density* – The population density is and will remain 1.5 to 3.0 times higher than the Los Angeles and Orange county averages respectively. By 2035, study area population density is forecasted to increase by 12 percent to an average of just under 12,000 people per square mile, with portions exceeding 14,000 residents per square mile.
- *High level of employment* – In 2035, with more than 2.3 million jobs, the study area will remain a major employment destination containing 29 percent of Los Angeles County jobs and 44 percent of Orange County's total employment.
- *Increasing employment density* – Similar to current conditions, future employment density will be 1.6 to 2.2 times higher than the Los Angeles and Orange County averages respectively.

Figure 1.2 – Corridor Activity Centers and Destinations



- *High number of low-income households* – Currently, more than 36 percent of all study area households are designated as low-income – twice the Orange County average and 20 percent higher than the urbanized Los Angeles County average. Low-income households are distributed throughout both county portions of the study area, with the highest number (45 percent) located in the northern Los Angeles County portion of the study area.
- *High number of transit-dependent households* – Today, sixteen percent of Corridor households lack access to an automobile – three times the Orange County average and 20 percent higher than the urbanized Los Angeles County average. A growing percentage of the Corridor's population will be reliant on transit in the future based on factors including an aging population and a forecast loss of jobs in the northern portion of the study area.

1.1.3 Economic Trends

While employment rich, with four times the jobs of San Diego – California's second largest city, the study area faces significant employment changes and challenges. Future forecasts show the northern Los Angeles County portion of the Corridor continuing to experience the loss of manufacturing and warehousing jobs, while the Orange County section will experience increased employment.

During the last two decades, most metropolitan economies have been shifting away from manufacturing to service sector jobs as part of long term structural changes to the U.S. economy. With its concentration of industrial and warehousing uses, the Los Angeles County portion of the study area once was the manufacturing heartland of Southern California. Employment in this portion of the study area has suffered disproportionately from the economic restructuring as reflected by the following:

- A large number of manufacturers have moved out of Southern California to lower production cost areas such as the southeastern U.S. and to developing countries in order to remain viable in an increasingly competitive global economy.
- Distribution firms have relocated from this area to avoid the increasing freeway and arterial congestion impacts on trucking activities. Major distribution centers have been developed in Southern California's Inland Empire replacing the functions that were once performed here.

Short term projections (for 2008 to 2018) prepared by the California Employment Development Department (CEDD) for both Los Angeles and Orange counties show a continued decline in manufacturing employment, with the decline being sharper for Los Angeles County. This is a long term trend that is expected to continue. In the future, while continuing to contain 29 percent of Los Angeles County's total employment, the northern portion of the Corridor is projected to lose four percent of its current jobs due to the ongoing economic restructuring. The projected decline in employment will have a significant impact on the communities in this area, which already have a high percentage of unemployment (ranging between 15 and 25 percent in half of the communities located in the Gateway Cities portion), and correspondingly, low-income (45 percent) and transit-dependent households (23

percent). Providing study area residents with improved access to employment opportunities elsewhere in the region will become of increasing importance.

Conversely, the Orange County portion of the Corridor is forecasted to experience a 19 percent growth to 44 percent of the county's total employment by 2035. Currently, this portion of the study area is attractive to the development of new service industry employment due to factors including the availability of a professional workforce and land to build new office space, along with better peak period access due to the on-going investment in the county's highway system. As the Orange County portion of the Corridor attracts an increasing number of jobs, maintaining ease of peak period travel access will be the key to maintaining this area's attractiveness for job development.

1.1.4 Travel Markets and Characteristics

The Corridor contains a wide variety of activity centers and destinations resulting in a diverse set of travel markets with the following primary travel markets:

- Commuters accessing major office employment areas located in Los Angeles, Anaheim, Orange, and Santa Ana;
- Commuters accessing industrial, manufacturing, warehousing, and intermodal facilities in Los Angeles, Bell, Cudahy, Downey, Huntington Park, Lynwood, South Gate, and Vernon;
- Students, teachers, and employees traveling to public and private educational institutions, including five existing and one planned community colleges;
- Visitors, including residents and tourists, accessing entertainment centers and special event generators such as Staples Center, Disneyland, and Knott's Berry Farm;
- Residents and visitors traveling to the performing arts centers in Los Angeles and Cerritos;
- Shoppers traveling to the Corridor's main street retail districts, such as Pacific Boulevard in Huntington Park and Downtown Santa Ana, and regional shopping centers;
- Residents and visitors traveling to shop or attend special events in one of the Corridor's ethnic cultural centers;
- Patients, visitors, and employees traveling to the Corridor's many hospitals and medical facilities;
- Out-of-town visitors traveling to the Anaheim and Los Angeles convention centers, and adjacent hotels, food, shopping, and entertainment activities;
- Residents and visitors traveling to recreational facilities, including state, regional, and local parks; and
- Transit-dependent residents, including senior, student, disabled, and low-income travelers, making transit connections to the regional and local bus and rail systems.

Many of these destinations attract local and regional trips from throughout Los Angeles and Orange counties, and beyond. The wide range of destinations results in a significant number of non-work trips,

including entertainment, cultural, and recreational travel. As demonstrated by other cities, including San Diego and Portland, a diverse set of trip types would widen and strengthen the utilization and viability of a transit system investment.

The most frequent type of Corridor trip is travel to work. This trip type occurs during a limited, but lengthening, window of time (morning and evening peak periods) and results in significant congestion on a majority of the study area's highway system. Reflecting the predominant current transportation investment in the Corridor's highway system, travel to work is characterized by a high level of automobile use – 86 percent in 2006 – as documented in the *PEROW/WSAB Corridor AA Purpose and Need Report*.

Given the projected future growth in the Corridor's population and employment, there will be a corresponding significant increase in daily travel. By 2035, 12.8 million new daily trips will be added to the Corridor's constrained highway system. Of those trips, 20 percent or 2.6 million daily trips will both originate in and remain in this 34-mile by eight-mile Corridor. Even with implementation of the planned and funded highway improvements, the Corridor's freeway and arterial system will experience worsening operations. Implementation of a high-capacity transit system could accommodate a portion of the future travel demand, and reduce future impacts on the Corridor's congested highway system, and provide another travel option.

1.2 Corridor Transportation System

At first glance, the study area appears to be well served by the regional transportation system illustrated in Figure 1.3 with seven freeways in or framing the study area, an extensive arterial street system, bus transit service provided by five operators, and city-based circulator services, but the system serving this densely-populated Corridor faces significant transportation challenges. The Corridor's transportation infrastructure is severely congested, and there is a limited range in transportation alternatives. Currently, travel demand on the freeway and arterial network exceeds the system's capacity in many places, resulting in considerable congestion during peak periods.

Even with the planned highway system improvements, study area travelers are projected to experience continuing and worsening freeway and arterial congestion through 2035. Although a wide range of bus are provided, including local, limited, express, and rapid lines, buses must operate on the same congested highway system as auto travel. Residents have limited access to the regional and Metro rail system in Los Angeles County. A single connection to the Los Angeles County rail system exists through the east-west running Metro Green Line. This Light Rail Transit (LRT) line operates in the northern portion of the study area, but does not serve the Corridor's primarily north-south travel patterns. Regional intercity service provided by Metrolink and Amtrak rail service is available only at the northernmost and southernmost ends of the study area, and does not operate through the study area.

Figure 1.3 – Corridor Transportation System

While highway system improvements are planned to improve flow and travel speeds, minor investments are proposed for the study area's bus transit service, and no improvements are proposed for rail service improvements. Study area residents will continue to have limited travel options – private automobile or bus transit – both using the same congested highway system. Minor investments are planned for the area's bus transit service which may improve mobility, but only in limited portions of the study area. With the forecast population and employment growth, the lack of investment in the area's transit infrastructure will limit mobility and transportation choices, adversely affecting future Corridor travel and economic vitality.

1.3 Mobility Problem

The ability to move quickly and efficiently in the PEROW/WSAB Corridor can be expressed in terms of freeway and arterial congestion, along with transit system accessibility and choice. This densely populated Corridor faces significant mobility challenges today and in the future with the forecasted growth in travel demand due to population and employment growth. As documented in the *PEROW/WSAB Corridor AA Purpose and Need Report,* by 2035 more than 12.8 million additional daily trips will occur in the Corridor straining the existing transportation network and without transportation system improvements, the Corridor's mobility problem can be described in terms of:

- Freeway and arterial congestion – The freeway system serving the Corridor is currently highly congested resulting in travel time delays for a significant portion of each day. Correspondingly, a large percentage of the study area's major arterial intersections currently operate at or beyond capacity during both peak travel periods.
- Transit system constraints – Travelers in the study area lack transit system options and connections both within the Corridor, and beyond the Corridor to the regional transit system.
- Limited travel options – The Corridor has limited travel options available to residents, with a current average of 86 percent of daily work trips made by automobile.

The Corridor's congested freeway and arterial street system, together with the limited bus and rail service, offer insufficient capacity and travel options to accommodate the forecast increase in daily trips. Development of an effective multi-modal transportation network is essential to meet the future mobility needs of Corridor residents and businesses by providing vital Corridor linkages.

1.3.1 Freeway and Arterial Congestion

Currently, a majority of the area's freeway and arterial system experiences severe congestion and operates near or at capacity during the morning and evening peak periods. Even with the planned highway system improvements, study area travelers are projected to experience:

- *Continuing freeway congestion* – In 2035, six of the study area's seven freeways are projected to operate at Level of Service (LOS) E or F along 80 to 100 percent of their study area lane miles during the evening peak period, and five of the seven freeways will be similarly constrained during the morning peak.

- *Increasing arterial congestion* – In 2035, arterial congestion is projected to increase to 90 to 100 percent of capacity on key routes, with many arterials forecasted to decline to LOS F.

1.3.2 Transit System Constraints

In the study area, bus service is the predominant transit option currently available to Corridor residents. The regional Metrolink commuter rail system is accessible only at the northernmost and southernmost ends of the study area. While the Metro Green Line is located in the Los Angeles County portion of the study area, its east-west operations do not adequately serve the Corridor's primarily north-south travel patterns, or its destinations and activity centers. No transit infrastructure improvements are planned beyond minor bus service increases, which will improve mobility, but only in limited portions of the study area. With the forecast growth in population, employment, and daily travel, along with the high level of low-income and transit-dependent households, and without future transit system improvements, study area mobility will be negatively impacted by:

- *Limited modal choices* – Corridor travelers must choose between the private automobile and bus transit for travel; both modes operate on an increasingly congested highway system.
- *Constrained bus transit service* – Congested highway conditions negatively impact schedule adherence, making bus travel slow and unattractive to both transit-dependent and choice riders.
- *Lack of transit service coordination* – The study area covers portions of two counties and the multiple bus and circulator services are not planned or operated to accommodate seamless travel across the county line. The resulting service is fragmented with gaps in the study area's transit network.

1.3.3 Regional Transit System Connectivity

Today, the regional transit system is comprised of two services – the Los Angeles County Metro urban rail system and the six-county Metrolink commuter rail system. Study area residents have poor connections to the regional transit system with access to only one Metro urban rail line, and two points of access to Metrolink commuter rail service. The only connection to the Metro rail system exists through the east-west running Metro Green Line. While this LRT line operates in the northern portion of the study area, it does not serve the Corridor's primarily north-south travel patterns. The Metro Blue Line, running between downtown Los Angeles and Long Beach, is accessible through a connection to the Green Line, but does not serve the Corridor.

Access to regional intercity Metrolink service is available only at the northernmost and southernmost ends of the 34-mile long Corridor at Union Station and the SARTC, and operates beyond the study area's northern boundary. This poor level of connections to the regional system limits mobility and travel choices, and will become more detrimental to future Corridor travel and economic vitality as the study area's population, employment, and correspondingly travel needs continue to grow. Reuse of the former PE Railway ROW offers a unique opportunity to implement high-capacity transit service in a dedicated ROW for approximately 60 percent of the proposed project length.

1.4 Purpose and Need

Development of an effective multi-modal transportation network within the PEROW/WSAB Corridor is necessary to meet the future mobility needs of residents and businesses by providing vital linkages both within the Corridor and beyond to the expanding regional transit system. By the year 2035, the magnitude and nature of the Corridor's population and employment growth trends are projected to result in continuing transportation challenges as evidenced by the following:

- *Increasing travel* – By 2035, more than 12.8 million additional daily study area trips will occur with 2.8 million daily trips both originating and remaining in the Corridor. The growth in trips within, to, and from the study area will strain the available transportation network.
- *Continuing highway system congestion* – Even with planned highway system improvements, travelers are forecasted to experience continuing freeway and arterial congestion. In 2035, a majority of the study area's freeways and major arterials are projected to operate at or nearing capacity during both peak periods.
- *Limited travel options* – Currently, Corridor residents must choose between the private automobile and bus transit for travel, with both modes operating on an increasingly congested highway system.
- *Poor connections to the regional transit system* – Residents currently have access to only one Metro urban rail line, and limited access to Metrolink service. The lack of high-capacity transit connections to the regional transit system constrains study area mobility and travel choices.
- *Continued poor linkages to and from Corridor destinations and activity centers* – The study area contains a diverse and unique set of local, regional, and national destinations and activity centers. Access to these destinations will become increasingly constrained as future highway congestion worsens negatively impacting their economic vitality.
- *Growing transit-dependent population* – With 16 percent of the study area's households currently lacking access to an automobile, along with a large number of low-income households, a forecast loss of jobs in the northern portion of the study area, and an aging population, an increasing percentage of the Corridor's population will be reliant on transit service in the future.

Implementation of a high-capacity transportation system in the Corridor is vital to address future connectivity and mobility challenges. The underlying needs supporting transportation improvements in the study area include:

- The Corridor houses a major and diverse set of activity centers and destinations.
  The PEROW/WSAB Corridor is a densely-developed comprised of the most active hearts of Los Angeles and Orange counties that has a diverse and unique combination of local, regional, and national destinations. The Corridor contains many local residential neighborhoods, community civic centers, shopping districts and centers, educational institutions, and medical facilities. There are concentrations of employment centers ranging from industrial uses in the northern portion of the study area to office employment centers in Downtown Los Angeles, Anaheim, and Santa Ana. In addition, this densely-developed Corridor is home to a significant number of regional and

national destinations ranging from Staples Center in Downtown Los Angeles at one end of the Corridor to Disneyland and Knott's Berry Farm at the other. Current and future congested travel conditions and poor transportation system connectivity make the Corridor's destinations and activity centers less attractive to residents and visitors negatively impacting the Corridor's quality of life and economic vitality.

- The study area will continue to capture a large share of regional population and employment. Currently home to 4.5 million people, the Corridor's population is projected to increase by more than 500,000 new residents by 2035. The study area's high percentage of regional employment will continue with 44 percent of Orange County's total employment, and approximately one-third of Los Angeles County's total jobs located here.
- There will be a high level of future travel demand.
  By 2035, total daily travel originating and remaining in the Corridor will increase by 36 percent with 12.8 million new daily trips straining the existing transportation network. A significant number of the projected trips – an additional 2.6 million daily trips – will both originate and remain in the Corridor.
- The current and future Corridor highway system operates at capacity and beyond.
  Today, the freeway and arterial system serving the Corridor is highly congested resulting in travel delays with many segments of freeways and major arterials operating at or near capacity during peak periods. Even with implementation of the planned highway improvements, increasing daily travel will adversely impact highway system capacity, and the level of service on the already congested highway network will continue to decline.
- Corridor residents have limited travel options.
  Currently, Corridor residents have two travel options – private automobile and bus transit – both of which operate on an increasingly congested highway system. Automobile travel remains more attractive with 86 percent of Corridor work trips made by car. Bus transit is constrained in effectiveness and patron convenience by traffic congestion and poor coordination across the county line between service providers.
- Corridor residents have poor connections to the regional rail system.
  The study area has weak connections to the expanding regional transit system. Currently, the Corridor has only one connection to the Metro urban rail system, and two points of access to the regional Metrolink commuter rail system. The only connection to the Metro rail system exists through the east-west running Metro Green Line, which does not serve the Corridor's primarily north-south travel patterns. Access to regional intercity Metrolink service is available only at the northernmost and southernmost ends of the 34-mile long Corridor at Union Station and the SARTC, and operates beyond the study area's northern boundary. This poor level of regional transit system linkages will become more detrimental to future Corridor travel and economic development as study area population and employment continue to grow.

- There is a strong need to serve changing employment patterns.
  While remaining a major employment center with 1.1 million jobs in 2035, the northern Los Angeles County portion of the Corridor, once the manufacturing heartland of Southern California, will continue to suffer disproportionately from long term economic structural changes. Since 1990, this section of the study area has lost approximately half a million jobs, and future projections show a continuation of this trend. Providing Northern Connection Area residents with fast, direct transit access to employment opportunities elsewhere in the region will become of increasing importance. Conversely, the Orange County portion of the Corridor is forecasted to experience a 19 percent growth in total employment by 2035. As this portion of the Corridor attracts an increasing number of jobs, forecasted to be 44 percent of the county's total employment, accommodating increased peak period travel access will be key to maintaining this area's attractiveness as an employment destination.

- Existing and future high population and employment densities support transit.
  The Corridor's land use patterns result in high levels of residential and employment densities that are supportive of high-capacity transit service. By 2035, the average study area population density will be an average of approximately 12,000 residents per square mile, with portions such as Northern Orange County, Gateway Cities North, and Downtown Los Angeles exceeding that average. Population densities of areas currently served by the Los Angeles County Metro rail system range from 10,100 (LRT) to 22,400 (subway) people per square mile.

  Corridor employment densities serve as indicators of the level of economic activity and as future support for a high-capacity transit system. In 2035, the average Corridor employment density is forecasted to be 5,400 jobs per square mile, with areas such as Downtown Los Angeles (14,000) and Northeast Orange County (9,500) exceeding that average. In comparison, employment densities of areas currently served by the Metro rail system range from 2,500 (LRT) to 14,000 (subway) jobs per square mile.

- The study area has, and will continue to have, a large transit-dependent population.
  Today, a Corridor-wide average of 16 percent of all households was identified as without access to an automobile. This is three times the Orange County average and 20 percent higher than that of urbanized Los Angeles County. The number of transit-dependent residents is expected to increase in the future reflecting the large number of low-income households, the continued loss of jobs in the northern portion of the study area, and an aging population. All of these factors will contribute to a growing reliance on the Corridor's transit system in the future.